

Order-No.
987

Sopro LZ 987

SMART[®] lightweight aggregate



Lightweight mineral aggregate made from expanded glass granulate for use in conjunction with Sopro Rapidur[®] B5 rapid-set screed binder to produce compression-resistant, rapid-set and early overcoatable lightweight levelling layers with thermal and sound insulation properties. Suitable for all coat thicknesses upwards of 20 mm in bonded construction. For filling pipe penetrations, large voids and sanitary service runs/assemblies. Ideal for refurbishment/renovation contracts. Can be laid to falls. Also suitable for use as loose fill.

- Mineral-based
- Ideal for refurbishment/renovation contracts
- Non-combustible
- Moisture-resistant and permanently dimensionally stable
- Offering thermal and sound insulation
- For levelling between pipes
- Pumpable

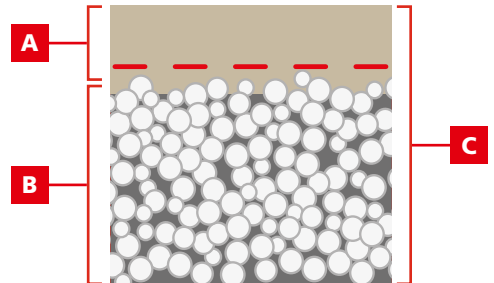
In conjunction with Sopro Rapidur[®] B5 rapid-set screed binder to produce compression-resistant, rapid-set and early overcoatable lightweight levelling layers with thermal and sound insulation properties. For levelling out large irregularities, filling pipe penetrations, service shafts, large voids and sanitary service runs/assemblies. As base for conventional screeds on separating layer or insulation. Can be laid to falls. Also suitable for use as loose fill.

Use	In conjunction with Sopro Rapidur [®] B5 rapid-set screed binder to produce compression-resistant, rapid-set and early overcoatable lightweight levelling layers with thermal and sound insulation properties. For levelling out large irregularities, filling pipe penetrations, service shafts, large voids and sanitary service runs/assemblies. As base for conventional screeds on separating layer or insulation. Can be laid to falls. Also suitable for use as loose fill.
Mixing ratio	25 kg (1 bag) Sopro Rapidur [®] B3 or Sopro Rapidur [®] B5 : 36 kg or 220 ltr (4 bags) Sopro LZ 987; approx. 13–15 ltr water 12.5 kg (1/2 bag) Sopro Rapidur [®] B3 or Sopro Rapidur [®] B5 : 18 kg or 110 ltr (2 bags) Sopro LZ 987; approx. 6.5–7.5 ltr water
Working life	Approx. 40–60 minutes (in conjunction with Rapidur [®] B3) Approx. 2–3 hours (in conjunction with Rapidur [®] B5)
Overcoatable/loadable	After approx. 4 hours with Sopro Rapidur [®] B3; after approx. 12 hours with Sopro Rapidur [®] B5.
Coat thicknesses	≥ 20 mm for bonded construction; ≥ 35 mm on separating or on insulation layer; ≥ 20 mm pipe cover.
Compressive strength	Approx. 1 N/mm ²
Thermal conductivity	0.075 W/m ² K
Impact sound reduction	Up to 10 dB*
Aggregate size	4 – 6 mm
Coverage	Sopro LZ 987: approx. 1.6 kg/m ² or approx. 10 ltr/m ² per cm coat thickness Sopro Rapidur [®] B3 or Sopro Rapidur [®] B5: approx. 1.2 kg/m ² per cm coat thickness
Dry apparent density	Approx. 320 kg/m ³ (with Sopro Rapidur [®] B3 or Sopro Rapidur [®] B5)
Fire rating	A1 to DIN 4102
Tile format	No size limit (min. tile thickness > 6 mm)
Max. bay size	100 m ²
Live loads to EN 1991	A1, A3 and A3; max. area load 2.0 kN/m ² , max. point load 1.0 kN/m ² (in conjunction with Sopro VS 582 self-levelling filler > 10 mm coat thickness)
Application temperature	Bonded: From +5°C to +25°C (substrate, air, material) Unbonded: All temperatures

* Test stand value to DIN EN ISO 140-8 serving as a general guide.
The performance of trial installations and measurements is therefore recommended, in each case, to establish the actual impact sound reduction index achievable on site.

Construction heights and weights per unit area

Construction	mm	kg/m ²	
Sopro VS 582* and Sopro PG-X 1188	10	21,0	A
Sopro LZ 987 with Sopro Rapidur® B3/B5 (bonded)	20	6,6	B
Sopro SMART® system incl. Sopro VS 582 and Sopro PG-X 1188	30	27,6	C
	40	30,9	
	50	34,2	



* To achieve strong bond and interlock between self-levelling filler and Sopro SMART® light levelling layer, filler penetrates approx. 2 mm into top part of this layer. Allowance is made for this additional consumption.

Shelf life

Approx. 24 months, subject to storage on pallet in dry conditions in original unopened containers

Packaging

9 kg bag (approx. 55 ltr)

Substrate preparation

For bonded construction, substrate shall be strong, dimensionally stable and free from adhesion-impairing substances (e.g. dust, oil, wax, release agent, efflorescence, laitance, paint, lacquer and varnish residue, old flooring adhesive residue). For unbonded construction, substrate shall be strong. As a rule, installation of perimeter insulation strip is required to avoid sound transmission paths and for subsequent overcoating.

Construction types

Bonded construction with concrete or cement screed: In case of bonded construction with concrete or cement screed, material may be laid horizontally or to falls. Where necessary, mechanically roughen substrate, suction clean, pre-wet and prime with Sopro HS 448 bonding slurry with trass, Sopro HSF 748 flexible bonding slurry with trass or Sopro RS 648 vibration slurry. Place lightweight levelling mortar, comprising Sopro LZ 987 and Sopro Rapidur® B3 or Sopro Rapidur® B5, wet on wet. Minimum coat thickness: 20 mm

On separating layer: Lightweight levelling mortar, comprising Sopro LZ 987 and Sopro Rapidur® B3 or Sopro Rapidur® B5, may be applied to separating layers in a minimum coat thickness of 35 mm.

On insulation layer: Lightweight levelling mortar, comprising Sopro LZ 987 and Sopro Rapidur® B3 or Sopro Rapidur® B5, may be applied to thermal insulation board or sheet as well as impact-sound insulation mats or board in a minimum coat thickness of 35 mm. A PE sheet is recommended as an intermediate layer. Nominal mortar thickness of min. 35 mm is required on insulation layers subject to vertical live loads ≤ 2 kN/m², for insulation layer compressibility ≤ 5 mm. For divergent loads, specifications of DIN 18560 Part 2 shall apply.

On wood-board flooring: Lightweight levelling mortar, comprising Sopro LZ 987 and Sopro Rapidur® B3 or Sopro Rapidur® B5, may be applied directly to strong wood-board floors with sealed joints, subject to minimum coat thickness of 35 mm. Pretreat timber substrate with Sopro HPS 673 bonding primer. Then place lightweight levelling mortar.

Existing joints in wood-board floor shall be sealed in advance with Sopro DA 049 acrylic sealant.

Note: Make provision for prescribed waterproofing in damp spaces.

Application

All standard mixing and pumping equipment are suitable for use.

Mixing ratio:

25 kg (1 bag) Sopro Rapidur® B3 or Sopro Rapidur® B5 : 36 kg

or 220 ltr (4 bags) Sopro LZ 987; approx. 13–15 ltr water

12.5 kg (1/2 bag) Sopro Rapidur® B3 or Sopro Rapidur® B5 : 18 kg

or 110 ltr (2 bags) Sopro LZ 987; approx. 6.5–7.5 ltr water

Mix lightweight levelling mortar to earth-moist consistency. No other cements or screed admixtures shall be added. Laying procedure is same as for earth-moist screed. Mixing, placing and trowelling shall be performed in immediate succession. Only lay screed sections that may be completed within working life of mortar. Stiffened material shall not be retempered by addition of water or mixing with fresh material to restore workability.

All standard mixing and pumping equipment are suitable for use.

Note: For mechanical pumping/delivery, binder content (Sopro Rapidur B3/B5) and amount of water added shall be increased by 50%.

Specified times

Apply for normal temperature range of +23°C and 50 % relative humidity; higher temperatures shorten and lower temperatures lengthen these times.

Safety precautions

Labelling of Sopro LZ 987: Exempt from labelling requirements under Regulation (EC) No 1272/2008 (CLP).

All standard precautions for the handling of construction materials/chemicals shall be taken.

Precautionary statements: P102 Keep out of reach of children. **P332+P313** If skin irritation occurs: Get medical advice/attention.

This document serves as a product description and sets out general details, based on empirical and test data, that take no account of specific cases of application. No liability may be construed and no claims shall be accepted in respect of these details. Should you require assistance, please contact our Technical Counselling Service. The latest version of this product information as well as the relevant safety data sheet to EC Regulation No. 1907/2006 are available at www.sopro.com!

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